

Mechanics - Collisions - Bullet into block attached to spring

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A bullet of mass m is fired into a wooden block of mass M of thickness d attached to a spring, at a velocity v_i . The spring with k is compressed by a distance x . Just at this moment the bullet makes it completely through the block and keeps going at a velocity v_f . What was the bullet's initial and final velocity in terms of m, M, d, k , and, x ?

